



FRONIUS SYMO HYBRID

The flexible choice for individual storage solutions



SnapInverter technology



Integrated data communication



Dynamic Peak Manager



Smart Grid Ready



Zero feed-in



Multi Flow Technology

With power categories ranging from 3.0 to 5.0 kW, the Fronius Symo Hybrid allows surplus energy from a photovoltaic system to be stored in various batteries.

The Fronius Symo Hybrid is compatible with the Fronius Solar Battery as well as storage devices from other manufacturers, such as LG Chem or BYD, and thus the ideal hybrid inverter. Intelligent Multi Flow Technology enables AC and DC coupling of battery storage. In addition, loads are supplied at the same time as the battery is being charged – even in back-up power mode.

TECHNICAL DATA FRONIUS SYMO HYBRID

| INPUT DATA | SYMO HYBRID 3.0-3-S | SYMO HYBRID 4.0-3-S | SYMO HYBRID 5.0-3-S |
|--|---------------------|---------------------|---------------------|
| Number of MPP trackers | | 1 | |
| Max. PV input power | 5.0 kW | 6.5 kW | 8.0 kW |
| Max. input current ($I_{dc\ max}$) | | 1 x 16 A | |
| Max. short circuit current, module array | | 24 A | |
| DC input voltage range ($U_{dc\ min} - U_{dc\ max}$) | | 150 - 1000 V | |
| Feed-in start voltage ($U_{dc\ start}$) | | 200 V | |
| Usable MPP voltage range | | 150 - 800 V | |
| Number of DC connections (PV) | | 2 | |

| BATTERY INPUT | SYMO HYBRID 3.0-3-S | SYMO HYBRID 4.0-3-S | SYMO HYBRID 5.0-3-S |
|----------------------------------|---------------------|------------------------------|---------------------|
| Maximum output power to battery | | Depends on connected Battery | |
| Maximum input power from battery | | Depends on connected Battery | |

| OUTPUT DATA | SYMO HYBRID 3.0-3-S | SYMO HYBRID 4.0-3-S | SYMO HYBRID 5.0-3-S |
|--|---------------------|--|---------------------|
| AC nominal output ($P_{ac,r}$) | 3,000 W | 4,000 W | 5,000 W |
| Max. output power | 3,000 VA | 4,000 VA | 5,000 VA |
| Max. power from grid to battery | 3,000 VA | 4,000 VA | 5,000 VA |
| Max. AC output current ($I_{ac\ max}$) | | 8.3 A | |
| Grid connection (voltage range) | | 3~NPE 400 V / 230 V or 3~NPE 380 V / 220 V (+20 % / -30 %) | |
| Frequency (frequency range) | | 50 Hz / 60 Hz (45 - 65 Hz) | |
| Total harmonic distortion | | < 3 % | |
| Power factor ($\cos \phi_{ac,r}$) | | 0.85 - 1 ind. / cap. | |

TECHNICAL DATA FRONIUS SYMO HYBRID

| GENERAL DATA | SYMO HYBRID 3.0-3-S | SYMO HYBRID 4.0-3-S | SYMO HYBRID 5.0-3-S |
|--|---|---------------------|---------------------|
| Dimensions (height x width x depth) | 645 x 431 x 204 mm | | |
| Weight | 19.9 kg | | |
| Degree of protection | IP 65 | | |
| Protection class | 1 | | |
| Overvoltage category (DC / AC) ¹⁾ | 2 / 3 | | |
| Inverter design | Transformerless | | |
| Cooling | Regulated air cooling | | |
| Installation | Indoor and outdoor installation | | |
| Ambient temperature range | -25 - +60°C | | |
| Permitted humidity | 0 - 100 % | | |
| Max. altitude | 2,000 m (unrestricted voltage range) | | |
| DC PV connection technology | 2x DC+ and 2x DC- screw terminals 2.5 - 16 mm ² | | |
| DC battery connection technology | 1x DC+ and 1x DC- screw terminals 2.5 - 16 mm ² | | |
| AC connection technology | 5-pin AC screw terminals 2.5 - 16 mm ² | | |
| Certificates and compliance with standards | VDE AR N 4105, ÖVE / ÖNORM E 8001-4-712, DIN V VDE 0126-1-1 | | |
| Emergency power function | Yes ²⁾ | | |

| EFFICIENCY | SYMO HYBRID 3.0-3-S | SYMO HYBRID 4.0-3-S | SYMO HYBRID 5.0-3-S |
|---------------------------------------|---------------------|---------------------|---------------------|
| Max. efficiency (PV - grid) | 97.7 % | 97.9 % | |
| Max. efficiency (PV - battery - grid) | > 90.0 % | > 90.0 % | > 90.0 % |
| Europ. efficiency (PV - grid) | 95.2 % | 95.7 % | 96.0 % |
| MPP adaptation efficiency | > 99.9 % | | |

| COMPATIBLE BATTERIES ³⁾ | AVAILABLE MODELS | BACK-UP POWER |
|------------------------------------|--|---------------|
| BYD | Battery-Box H 6.4, 7.7, 9.0, 10.2, 11.5 Battery-Box Premium HVM 8.3, 11.0, 13.8, 16.6, 19.3, 22.1 ⁴⁾ | Yes, 3-phase |
| LG CHEM ⁴⁾ | RESU 7H, 10H | No |

¹⁾ Testing to IEC 62109-1

²⁾ Not available with LG Chem RESU

³⁾ The inverter should always have the latest software update on Solar.web to ensure that the inverter and battery storage are functioning properly.

⁴⁾ Fronius Checkbox 500V is mandatory

Further information regarding the availability of the inverters in your country can be found at www.fronius.com.

/ Perfect Welding / Solar Energy / Perfect Charging

THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 5,440 employees worldwide and 1,264 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

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